



Tasmanian Field Naturalists Club

Quarterly News.

No 2

October 1937.

MEETINGS HELD IN THE PAST QUARTER.

On August 12th, Dr. J. Pearson gave a most interesting illustrated lecture on "Deep Sea Fish". Representatives of the Boy Scouts, Girl Guides and the Hobart Walking Club attended as guests. After speaking of the Challenger Expedition of 1872 he went on to describe the depths of the seas, and stated that 58 p.c. of the ocean was between two to three miles deep. More life, he said, was found in the colder waters than in the warmer. He showed diagrams of deep sea fish with enormous heads and extremely extended stomachs; many of these abyssal animals are blind, and many are phosphorescent. In most parts of the world the bed of the ocean at depths from 400 to 2,500 fathoms, is formed of a greyish mud called globigerina-ooze consisting largely of Foraminifera shells, such as Globigerina, Orbulina etc. Below 2,500 fathoms the sea-bottom consisted of red clay, in which shells were absent, having apparently been dissolved during their descent to this great depth.

At one time investigators thought there could be little life in the deepest parts of the ocean on account of the tremendous pressure, which at a mile down amounts to about a ton to the square inch. Atmospheric pressure is a mere 14 lbs. to the square inch.

JUNIOR MEETINGS.

Mr. W. Cunningham demonstrated the mounting and preservation of animals, on August 13th, and on the same evening the President gave an illustrated talk on "Some Tasmanian Animals", pointing out their great scientific value.

On September 10th, Mr. J. W. Evans continued his Talks on Biology, giving an interesting account of Evolution and illustrating this with diagrams and specimens.

Dr. A.M. Lewis gave a lecture on "Our Sea Coast" on September 24th. He illustrated this with a beautiful series of slides, many in colours. It was an instructive talk, showing how our coast line was being built up.

OUTINGS: Two outings were arranged during September and were well attended.

COMING EVENTS: The Juniors will be going out on Saturday, October 16th, and also on November 20th, particulars will be issued later.

On October, 29th, at 7.30, Mr. J. W. Evans gives his last Biological Talk to Juniors; this will be illustrated with lantern slides and is sure to be most interesting.

On Thursday, November 18th, there is a meeting for Senior Members, at which D. Colbron Pearse will speak about Tasmanian Animals, illustrated with slides.

COMPETITION.

For the Best Collection of Wild Flowers and Plants made during the next nine months by members of the Junior Section.

Specimens to be collected, mounted and named, as for a Herbarium. Collections to be sent to the Hon. Secretary of the Club by June 30th, 1938.

Prizes have been donated by Mr. J. Broaden in four classes:-

- A picture to a boy under 14 years.
- A picture to a girl under 14 years.
- A picture to a boy under 18 years.
- A picture to a girl under 18 years.

We hope that all Junior Members who are interested in Botany will enter for this competition.

The collections will be returned to the owners after judging.

RESULT OF COMPETITION.

The Junior Competition, "Why I joined the Field Naturalists' Club", was won by Miss D. Weymouth, and we congratulate her on the excellence of her essay. All the essays were good, but some competitors rather wandered from the main point. The prize (10/-) will be presented to Miss Weymouth at our next meeting.

DEVONPORT BRANCH.

The following reports have been received from Mr. H. Stuart Dove. We are pleased to hear that the Devonport Branch is making good headway.

"A preliminary outing of this newly-formed Field Naturalists' Club was held on July 31st, when a visit was made to the bush behind Middle Road. Red Heath (*Epacris impressa*) was in flower, but Prickly Beauty (*Pultena juniperina*) was only in bud. The valves

of the seed vessels of the Guitar Plant (*Lomata tinctoria*) were still attached to its branchlets. Three species of eucalypt bordered the track - white or Mauna, Peppermint, and Stringy-bark. The rich mating calls of the yellow-throated Honey-Eaters were heard among the eucalypts, and several other birds were noted, including Butcher-birds or "Derwent Jackass" (*Cracticus torquatus*) and Brown Tits (*Acanthiza pusilla*).

On the afternoon of 21st August, ten members spent a couple of hours or so on a bush road between Moriarty and Latrobe, east of the Mersey. The soil was a sandy loam and the chief trees were Peppermints (*Eucalyptus amygdalina*), which delight in this kind of ground. Among the orchids found were Greenhoods (*Pterostylis nutans*) and Little Spider Orchids (*Acianthus caudatus*). The Frilled Hood (*Corysanthes finbriatus*) one of the prettiest of our orchids, has been found here in former seasons.

On 22nd August, our Hon. Secretary, Mr. Don White, took his family and a friend for a run to the Don River near Melrose; a number of tall Silver Wattles (*Acacia dealbata*) were just bursting into bloom, and made a pretty spectacle against a hillside over which was dense growth of White Gums and Stringybarks. Here again, as on the trip at the end of July, the fine yellow-throated Honey-Eaters were calling melodiously from the groves of gums; other species seen or heard were Whistling Dicks (*Collyriocinclla harmonica*), Blue Wrens (*Malcerus cyaneus*) and Brush Bronze-Wing (*Phaps elegans*).

Two or three members spent an hour or two in the bush on a fine afternoon during the last week of September. Several orchids were gathered from under the shade of the large Eucalypts, among them Nodding Greenhood (*Pterostylis nutans*), Tall Greenhood (*P. pendunculata*), Small-Ears (*Microtis porrifolia*), and a small semi-transparent species, perhaps Lesser Ant

Orchid. The spring shrub Native Gorse (*Darwinia uliginosa*) was in flower, as was the sweet-scented Purple Heath flower (*Tetratheca pilosa*) and the Twining Love (*Comesperma volubile*). The small Sundew (*Drosera auriculata*) was abundant in moist spots, and another orchid not noted above was the peculiar Little Spider (*Acianthus canaliculatus*). One example only of the Iris (*Diplazium morceae*) was in flower, so far; next month there will be a profusion of Blue Lily (*Dianella tasmanica*) and Guitar Plant (*Lomatia fraseri*). The scented Wattle (*Acacia suaveolens*) was in flower, and the Varnish Wattle (*A. verniciflua*) blooming everywhere. Birds noted were:- Whistling-Dicks or Shrike Thrushes, Fan-tailed Cuckoos trilling sweetly from the trees, and Yellow-throated Honey-Eaters calling from gum saplings. Several brownish birds with white on wings, flew swiftly among the trees, not giving any chance of a close view; perhaps Dusky Robins (*Petroica vittata*).

On Saturday, September 4th, a visit was paid to the old Aboriginal camping site at Mersey Bluff. Several small stone scrapers, in quartzite and breccia, were found. After staying a couple of hours, a move was made to the top of the Bluff for the purpose of examining the aboriginal rock "carvings" on the diabase. These "carvings" consist of geometrical patterns, ovals, and double circles. Members also went to inspect some rock markings at the back of the old garden.

ASTRONOMY.

By Chas. Elliott.

When we look at the sky on a clear night we see a great many stars. What are they? They are suns like our own sun, though many are much larger, our sun being a comparatively small one. They are molten masses of fire, radiating great heat and light, and having a great gravitational pull. Probably some of them have a Solar or Planetary System,

just as our sun is the centre of gravity for its planet. These planets are masses thrown off from the "parent" sun. These planets, in addition, have often thrown off smaller planets, which we call satellites, or moons. These revolve round the planet to which they belong. Most of the stars we see are in our own galaxy, that is, a system of stars revolving round a common centre. The milky way is the rim of our galaxy. There are many other galaxies which appear to us to be nebulae, but which powerful modern telescopes have proved to be masses of stars.

Stars are grouped: (a) according to brightness; (b) in constellations. The brightest stars are 1st magnitude, the next brightest 2nd magnitude, and so on. We see only up to 6th magnitude with the naked eye, but photographs have revealed up to 20th magnitude. The ancient Chaldeans grouped them into constellations, and named them after heroes, animals, etc. Many have been named in modern times. The age of a star is determined by its colour. They start by being red-hot, and then become white-hot, and fade away, being yellow, orange, bright red, dull red, and then they fade out.

Some stars are much more distant than others. Distance is measured in light years. Light travels at the rate of 186,000 miles per second, and 6 million million miles per year, so that a star that is 6 million million miles from the earth is said to be 1 light year away. Our Sun's distance from the earth is 8 light minutes, or 93 million miles away, and is the nearest star to us. The next nearest is Alpha Centauri (the brightest of the two pointers of the Southern Cross) which is 4 light years away - the light from it taking 4 years to reach us. The most distant of bright stars is Canopus in Argo (in the Southern sky) which is 650 light years away, which means that light that left

in Edward I (Plantagenet) time is only reaching us today. Though this star is so unbelievably far away it is one of the brightest in the sky, so we can try to imagine the size of this immense "sun".

TASMANIAN CONIFERS.

There are three recorded species of the genus *Arthrotaxis*, a genus that is confined to this State.

A. cupressoides (King William Pine) was first discovered on the King William Range, hence its common name.

A. selaginoides (Pencil Pine), and a variable form *A. laxifolia* intermediate between the other two.

Other conifers are -

Fitzroya archeri, a small shrubby plant, fairly common at high altitudes in damp soil.

Microcachrys tetragona, the small creeping 'pine' found in similar positions to the last, and is peculiar in having bright red cones.

Pherosphaera hookeriana (Hooker's Pine) is another of the yews growing at high altitudes in wet places. It has a near relative in the wet forests of N.S.W.

Dacrydium franklini (Huon Pine) is a yew that lives on the banks of streams and in wet gullies of the western part of the State. It is of slow growth and produces excellent timber. In New Zealand there are seven species all endemic, and each member of the genus has a very restricted distribution, giving rise to the opinion that it is of a dying-out race.

The Secretary of the Tasmanian Biological Survey would like to hear from anyone willing to collect native mice, other small mammals, insects, etc. Equipment supplied free and postage paid on specimens sent to him C/o The Museum.

MEMBERSHIP.

We are pleased to report a small increase in membership for the quarter.

Annual Subscription ... 5/-
Subscription for Juniors 2/6.

Club Badges are obtainable from the Hon. Secretary,
C/o Sargison's Jeweller, 21 Elizabeth Street, Hobart.

"Guide to Collecting", price 3d.

N O T I C E.

TASMANIAN WILD FLOWER SHOW WILL BE HELD ON
NOVEMBER 4th & 5th IN THE TOWN HALL, HOBART.



Tasmanian Field Naturalist's Club.

Quarterly News.

No 3

January 1938

We wish you all a
Happy and Prosperous New Year.

Another year has passed, and in reviewing the Field Naturalists' work we wonder if we ought to be proud of our achievements or give ourselves a shake up for not being more active. One thing is certain, and that is, the Executive Committee has worked hard, and many members have given valuable assistance at our Social Evenings and the wild Flower Show. In addition to this a Branch has been formed in Devonport that promises to be of importance. The Junior Section has gone ahead under the secretaryship of Miss J. Cox, and has held several well attended outings and meetings. So far so good, the Club has done well, but we should like to see more senior members take an interest in the field work, we want more collectors, and more people to keep Nature Notes. Tasmania offers great opportunities, so let our New Year resolution be greater activity in the field. Think this over and see what you can do.

WILD FLOWER COMPETITION.

In the October News we mentioned that Mr. Breaden has kindly offered four prizes to the Junior Section for the best collection of Wild Flowers and Plants, these collections to be sent in to the Secretary by June 30th, 1938.

We hope that our Junior Members will send in fine collections for this competition. After the judging the specimens will be returned to the owners.

MEETINGS.

Since our last issue, the Juniors have held some enjoyable outings, and on October 29th. Mr. J. W. Evans gave an illustrated talk on "Insects". The seniors met at the Tasmanian Museum on Nov. 18th when an illustrated lecture on "Some Tasmanian Animals" was given by our President, D. Colbron Pearse, after which supper was served. At this Meeting it was announced that His Excellency the Governor had honoured us by consenting to become Patron of our Club and was unanimously elected.

The Wild Flower Show was opened by His Excellency The Governor, and proved a great success. Exhibits came from all parts of the State, and His Excellency and Lady Clark spent some time admiring the specimens, which they described as very beautiful. In his opening speech Sir Ernest Clark invited members of the Club to visit his rock garden at Government House, and several Members have taken advantage of this generous offer.

ANNUAL GENERAL MEETING.

The Annual General Meeting will be held in the Royal Society's Room, Tasmanian Museum, at 8 p.m. on February 10th. The principal business is the election of the following officers:-

President, Vice President, Hon. Secretary, Hon. Treasurer, and six members of the Executive Committee.

With the exception of the President and the Hon. Secretary, all are willing to stand for re-election, at present there are five members on the Committee willing to stand for re-election and one vacancy to be filled. Anyone wishing to nominate a member should send in the name to the Secretary.

Dr. J. Pearson, Director of The Tasmanian Museum and Art Gallery has gone on leave to Europe with Mrs. Pearson and will be away for six months. We hope they will have a very happy time and a safe trip back to Tasmania.

BIRDS AND TERRITORY.

H. Eliot Howard has written an interesting book on "Territory in Bird Life". In this he tells us that as a result of patient watching among English fields and woods, he arrived at the conclusion that practically all birds, when the mating season comes round, adopt a territory for themselves. In the case of finches and buntings, for instance, it is the male that selects the site, and will fight for it against all comers both male or female. This annexation occurs some time before the arrival of the female, and the male spends most of his time in driving off intruders and singing. The primary sex instinct is to occupy territory, and the primary function of their song is to advertise the ownership of territory. The size of the occupied area depends upon food supply and the ability of the parents to find it. By thus occupying certain areas birds unconsciously adjust their population to the available supply of food. Lord Grey in his book "The Charm of Birds" gives similar facts as observed by him in Hampshire.

In connection with this it would be of interest to find out if territory in some form or other plays a part in the lives of Tasmanian birds. The question can only be answered by careful observers, and anyone able to undertake this work would gain valuable biological knowledge.

NOTICE.

The Annual Subscriptions are due on January 1st. Will members please send these to the Hon. Secretary as soon as possible.

SENIORS 5/-.....JUNIORS 2/6.

EASTER CAMP.

An Announcement in connection with the Easter Camp will be made at the Annual General Meeting.



Tasmanian Field Naturalists Club

Quarterly News.

No 4

April 1938

We are devoting this issue to the Easter Camp for the benefit of those who are going and for the information of everyone. The article by our President will be of interest to all Field Naturalists.

Tasmanian Field Naturalists Club.

EASTER CAMP - KALLISTA.

The Camp this year is to be held at Kallista, about six miles from Fitzgerald. It is new ground for members of the Club, and the site is rich in scientific interest. There are a number of interesting walks, and these will be undertaken under the leadership of our President, Dr. A. N. Lewis.

1. The following time-table for the journey to and from the camp has been arranged:-

TUESDAY, 12th April: Box truck will be in Goods Yard, Evans Street, Hobart Railway Station from 12 noon to 5 p.m. Members may load heavy luggage then. Small items of personal luggage can be taken in carriages but members are asked to send heavy or large parcels by early train.

WEDNESDAY, 13th April: Advance party train leaves Hobart Station at 8.55 a.m.

THURSDAY, 14th April: Main party train leaves Hobart Station at 6.30 p.m.

TUESDAY, 19th April: Train due back at Hobart at 5.50 p.m.

Trains leave Hobart daily at 8.55 a.m. and 5.30 p.m. and leave Fitzgerald on return daily at 6 p.m. and 2.30 p.m. Any members travelling by train on days other than Wednesday 13th., Thursday 14th or Tuesday 19th should inform the Camp Secretary to enable arrangements to be made for transport from Fitzgerald to camp.

2. Individual tickets will be issued. Application for these must be made not later than a day before departure. As tickets have to be obtained from Railway, names of those attending camp should reach the Secretary not later than Saturday 9th April. When nominating please state whether a ticket is required or not. The club is purchasing 30 tickets which should be used. If any member travels by another he will purchase his own ticket and a deduction of 10/- will be made from the camp subscriptions.

3. Members are informed that the sleeping car available at Kallista has 20 bunks but these are not supplied with mattresses. Ladies are requested to inform the Secretary whether they desire a bunk in the sleeping car or accommodation in a tent.

A Programme of camp activities has been supplied to all members, and a very enjoyable holiday is envisaged - weather permitting.

KALLISTA.

By Dr. A. N. Lewis.

Kallista is the name of the terminus of the Derwent Valley railway. Really the line ends at Fitzgerald, but a couple of years ago a light line was extended for about 6 miles further into the bush and a train runs out when a load of timber is to be dragged down. The Valley of the Russell Falls River joins the Derwent at Glenora. At first the valley is fairly fertile but from Westerway, past National Park to Fitzgerald it is a steep sided gorge with the river as a rushing torrent at the bottom. From Fitzgerald the country opens out. Some 15 miles further west stands Mt. Mueller dividing the Russell Falls watershed from the Florentine and forming the source of these rivers and also the Styx which joins the Derwent at Bushy Park and the Weld, one of the

largest tributaries of the Huon.

Although Mt. Mueller is one of the most attractive and important Mountains in Tasmania its height has never been definitely fixed but is probably 4,000 feet. A high ridge of rugged quartzite rocks - the Needles runs Northward. This is broken by two saddles with two interesting mountains - Tim Shea and Wherrett's Look Out between them. The track to the Florentine and Adamsfield and the old Great Western Railway survey crosses here and the ridge terminates in the Mt. Field ranges, the southern peak of which Tyenna Peak overlooks Kallista.

Another spur runs south eastward and separates the Russell Falls and Styx Valleys by the Maydena Range about 3,000 feet high immediately South of Kallista. A third spur runs out to Mt. Anne and Mt. Wedge. The slopes of Mt. Mueller are covered with virgin forest and a pretty lake nestles near the top. The track to Port Davey crosses one shoulder at 1,900 feet.

Kallista is in real west coast country and is the nearest spot to Hobart where wild forest and mountain scenery is to be found. The railway siding is right against the bush. Behind is a bare ridge, Pine Hill, covered with button grass and in November, ablaze with *blandfordia*. The last house is some two miles nearer Hobart. Once there was a clearing a mile or so further in known as Mayne's, but this was destroyed in the great bush fires of 1934. Within a mile of Kallista railway siding you can get into the real Tasmanian bush with horizontal, beech and laurel predominating. Some timber tracks penetrate this forest for a few miles, but it is quite impossible to venture off these tracks. The old track to Port Davey leaves civilization here and provides an interesting and easy walk.

Four miles nearer Hobart is the settlement of Junee, the last outpost of civilization in this direction. There are vast beds of limestone here extending up the Field ranges and the little Junee river emerges from a romantic cave. Its water is renowned for its coldness and absolute regularity of the temperature and flow at all seasons. From Junee the Adamsfield track winds 22 miles through the forests and across the ranges to the centre of the

osmiridium mining and the old Great Western Railway survey may still be traced in places following much the same route.

Kallista is in the centre of a basin in old palaeozoic rocks the same as those of the western mining fields. Mining prospects abound all round. There was a gold prospect almost at the siding. A little way North was the Humboldt Mine which gave gold, silver, copper, lead, zinc and iron. Other scratchings for gold can be seen west of Juneee. There are persistent rumours of rich copper deposits on the flanks of Mueller, Osmiridium can be dished out of all the creeks.

The new railway cuts through some folds of the rocks in which have been found the interesting fossils known as trilobites and the whole district abounds in features of geological interest. Along the forest tracks wallaby and other animals roam nightly and little opossum mice may visit any camp. The devil himself is not extinct in this area. The stream near the railway should yield platypus to a careful searcher. Above all, there is the luxuriant rain forest of the West with its wealth of plant life to be studied and enjoyed, and even where this has suffered the ravages of bush fires, huge tree ferns are beginning to replace the damage.

Trilobites.

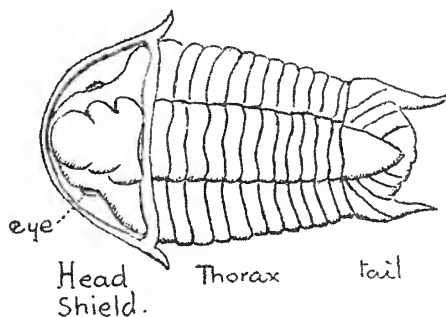
Trilobites were primitive crustaceans, somewhat resembling a gigantic wood-louse, often 4 inches long by 2 inches broad. The family is now entirely extinct and only to be found as fossils in lower palaeozoic rocks. They are world wide in distribution and are most useful in correlating these early rocks in different parts of the world.

There are two groups of rocks in Tasmania in which these interesting fossils have been found. One, at Zeehan, is of Silurian age. The other is of Lower Ordovician age and is the more important. Until last Christmas the latter series was only known as a bed a few inches thick at Caroline Creek near Latrobe and some scattered boulders at Tim Shea 9 miles North of Kallista. Now we have found some beds on the railway at Kallista.

No complete trilobite has ever been found in Tasmania, but it is hoped that the Kallista beds will yield one. This absence has thrown doubt on the proper classification of the Tasmanian forms. Apart from their enormous interest biologically these fossils form our most useful means for zoning our ore bearing rocks. They are of international interest in linking up ancient land masses and oceans, and no fossil creates a wider interest or is as intensely studied. The finding of one complete trilobite at Kallista would be an event of the greatest importance in geological circles.

Tasmanian Trilobite.

Can you find a complete specimen?



The animal had a head shield and a tail segment of tough material and a segmented body of loosely jointed armour. Usually these parts have fallen to pieces before preservation. The principal points in classification are the shape of the front portion of the head, the size of the genial angles, the number of segments of the thorax, the shape of the tail segment and any tail processes and their shape. Until a complete animal is found the various portions cannot be connected satisfactorily. The animal had small crawling legs and antennae but these are very seldom preserved. It takes some practice to detect small fragments of trilobite tests in the very altered rock in which they are found but an unnatural smoothness in an otherwise rough sandstone is the first indication. Sometimes the markings of the tail segment look like the veins of a fossil leaf.

CORRESPONDENCE.

Mr. E.W. Cruickshank writes:--

"I saw last November a crow volplaning for several hundred yards. This surely is unusual as they always seem to work their passage."

DEVONPORT BRANCH.

This Branch continues to make good progress. Last October Mr. Scott of the Launceston Museum, who was spending a holiday at Mersey Bluff, gave a most interesting talk, illustrated with a microscope, at West Bay.

JUNIOR SECTION.

The first meeting of the Juniors was held in the Tasmanian Museum on March 18th. The room was packed with Juniors and visitors who seemed to enjoy the three films of animal life in India, Africa, and Australia. Several new members joined.

WILD FLOWER COMPETITION.

Juniors are reminded that June 30th is the last day for sending in their collection of wild flowers and plants.

JUNIOR MEETINGS IN APRIL.

April 1st. 7.30 in the Museum -

Talk "Tasmanian Aborigines"

by

A.W.G.Powell.

April 8th. Outing to the Cascades.

ANNUAL GENERAL MEETING.

The Annual General Meeting was held on February 10th. Dr. A. N. Lewis was elected President. There was a large attendance. Mr. D. C. Pearse gave an illustrated talk on "The Bunyip".

TASMANIAN BIOLOGICAL SURVEY.

The Report and Balance Sheet for this Survey has just been issued for the year ending Dec. 31,1937.

It will be remembered that the Survey commenced operations in July last and during the six months under review excellent progress has been made. Certain papers are shortly to be published in the Proceedings of the Royal Society dealing with research work carried out by members. More collectors are needed, and full particulars may be obtained from the Secretary at the Museum.

CAVE SPIDERS AND CAVE INSECTS.

Cave animals are of particular interest, their eyes are more or less degenerate and they often have no ears and no sound organs. To compensate for the loss of these they possess enormous antennae or feelers, and other sense organs are greatly developed. The hairs on the body and limbs of many cave animals including the spiders no doubt help to warn them of danger, they are extremely sensitive to slight air currents. The Biological Survey is particularly keen to obtain specimens of cave insects and spiders.

All communications should be
addressed to the Secretary -
C/- Sargison's, 21 Elizabeth
Street, Hobart.

"A Guide to Collecting" is
obtainable from the Secretary,
Price 3d. Badges 2/-, Junior
Badges 1/6d.